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REMARKS

Applicants' attorney thanks the Examiner for her comments. The specification is amended at page 9, line 2 to indicate that the described matrix polymer includes about 15% to 50% by weight ultra low density polyethylene formed using a single-site catalyst. This amendment is supported in the same sentence which indicates that the matrix polymer includes about 50% to 85% by weight linear low density polyethylene formed using a Ziegler-Natta catalyst. When the Ziegler-Natta catalyzed polymer is present at 85% by weight, for instance, the single-site catalyzed polymer would be present at 15% by weight (contrary to the previously-stated lower limit of about 20% by weight).

Independent Claim 1 has been amended to state that the matrix polymer comprises about 50-85% by weight of a Ziegler-Natta catalyzed ethylene homopolymer or copolymer and about 15-50% by weight of a single-site catalyzed ethylene homopolymer or copolymer. Claim 1 has also been amended to recite a Markush Group for the incompatible polymer. The incompatible polymer is selected from the group consisting of polypropylene homopolymers, polypropylene copolymers containing up to about 10% by weight ethylene or a C₄-C₂₀ alpha-olefin comonomer, nylon, polyester, and combinations thereof. Support is found on page 9, lines 13-19.

Independent Claim 12 has been amended to recite a laminate. This is consistent with the term "laminate waste material" already recited in Claim 12. The laminate includes a fibrous nonwoven web. The fibrous nonwoven web and laminate waste material each include a polypropylene homopolymer, a polypropylene copolymer containing up to about 10% by weight ethylene or a C₄-C₂₀ alpha-olefin comonomer, or a combination thereof. See page 7, lines 16-18; page 9, lines 17-19. The incompatible polymer in the core layer of the film may be contributed by the nonwoven web. When the laminate is edge-trimmed, for instance, the nonwoven web may contribute a large weight fraction of the laminate waste material that is recycled into the core layer.

Independent Claim 32 has been amended to recite the same Markush Group for the incompatible polymer that is recited in Claim 1. Claim 32 also recites that the nonwoven web includes the polymer which is incompatible with the matrix polymer

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(See p. 7, lines 15-19). Various dependent claims have been amended for consistency with the amended independent claims.

**a) Claim Rejections Based On Peiffer et al.
In View Of Haffner et al.**

The rejection of Claims 1-2, 4-6, 32, 35-37, 41-43, 45 and 47 under 35 U.S.C. §103(a) as obvious over U.S. Patent 5,573,717 (Peiffer et al.) in view of WO 99/14947 (Haffner et al.) is respectfully traversed.

Peiffer et al. discloses an oriented polyolefin film including at least one voided layer. The voided layer contains an amorphous void-initiating polymer which, after orienting, is present as a separate particle inside the void. The amorphous polymer may be an atactic polystyrene, poly-alpha methylstyrene, polycarbonate, polyacrylate, amorphous polycyclic olefin, polyvinylcarbazole, atactic polyvinylcyclohexane, polyvinyl chloride, polyacrylonitrile, hydrocarbon resin, or rubber (Col. 5, line 61 – Col. 6, line 25).

The polyolefin may be a propylene polymer, alone or combined with other polyolefins. The propylene polymer contains at least 90% by weight propylene, and constitutes at least 50% by weight of the voided layer (Col. 4, lines 28-52). Other polyolefins, when present, constitute not more than 15% by weight of the polyolefin combination (Col. 4, lines 55-63). The amorphous void-initiating polymer constitutes up to 40% by weight of the voided layer (Col. 4, lines 64-68). The voided layer may also contain up to 25% by weight of a "pigment" such as calcium carbonate (Col. 6, lines 26-50).

As to independent Claim 1, Peiffer et al. does not disclose a matrix polymer comprising about 50-85% by weight of a Ziegler-Natta catalyzed ethylene homopolymer or copolymer and about 15-50% by weight of a single-site catalyzed ethylene homopolymer or copolymer.

As to independent Claim 32, Peiffer et al. does not disclose a matrix polymer consisting essentially of a single-site catalyzed ethylene homopolymer or copolymer, optionally in combination with a compatible olefin polymer or copolymer.

As to Claims 1 and 32, Peiffer et al. does not disclose an incompatible polymer selected from the claimed Markush Group, and present in an amount less than

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the matrix polymer. For instance, both claims list polypropylene homopolymers and copolymers having up to about 10% ethylene or C₄-C₂₀ alpha-olefin comonomer, within the Markush Group of incompatible polymers. As explained above, Peiffer et al. requires polypropylene polymers to be the major (primary matrix) component in the voided films, contrary to Applicants' claims.

Haffner et al. also does not disclose the foregoing limitations of Claims 1 and 32. Haffner et al. is cited as disclosing a single-site catalyzed ethylene homopolymer or copolymer in an "intermediate" layer of a stretch-thinned film (Office Action, pp. 2-3). However, the "breathable intermediate layer 16" disclosed on page 12, line 20 et seq. of the reference is not an intermediate layer of a film. As shown in the cover drawing, the "intermediate layer 16" is an outer (skin) layer of a film and is intermediate between a primary film layer 14 and a spunbond layer 22. Thus, the reference does not disclose a single-site catalyzed ethylene homopolymer or copolymer in a core layer of a film having three or more layers.

Furthermore, even if the single-site catalyzed ethylene polymer of Haffner were added to the primary film layer of Peiffer et al., it could not constitute more than 15% by weight of a polyolefin blend that includes polypropylene as the major component (Peiffer et al., Col. 4, lines 36-64). Applicants' Claims 1 and 32 list polypropylene as an incompatible polymer, and permit its inclusion only in an amount "less than an amount of the matrix polymer."

Claims 2, 4-6, 35-37, 41-43 and 45 depend from Claim 1 or 32, and are patentable for at least the same reasons. Claim 47 depends from Claim 12, and was improperly rejected because Claim 12 was not rejected over this art. The claim rejections based on Peiffer et al. in view of Haffner et al. should be withdrawn.

**b) Claim Rejections Based On Haffner et al.
In View Of Morman et al.**

The rejection of Claims 1-2, 4-6, 32, 35-37, 41-43, 45 and 47 under 35 U.S.C. §103(a) as obvious over Haffner et al. in view of U.S. Patent 6,821,915 (Morman et al.) is respectfully traversed. Again, Haffner et al. is erroneously cited as disclosing an intermediate film layer comprising a single-site catalyzed ethylene homopolymer or

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copolymer, combined with additional polymers. The "intermediate layer 16" referred to by the Examiner is instead an outer (bonding) film layer, positioned between a primary film layer 14 and a spunbond layer 22 (Fig. 1).

As to independent Claim 1, Haffner et al. does not disclose a breathable core layer coextruded between two outer skin layers, where the core layer includes a matrix polymer which comprises about 50-85% by weight of a Ziegler-Natta catalyzed ethylene homopolymer or copolymer and about 15-50% by weight of a single-site catalyzed ethylene homopolymer or copolymer.

As to independent Claim 32, Haffner et al. does not disclose a core layer coextruded between two outer skin layers, where the core layer includes a matrix polymer which consists essentially of a single-site catalyzed ethylene homopolymer or copolymer, optionally in combination with a compatible olefin polymer or copolymer. For instance, the description in Haffner et al. of a base layer (analogous to a core layer of a multilayer film) does not mention a single-site catalyzed ethylene homopolymer or copolymer (p. 11, lines 3-17).

As to Claims 1 and 32, Haffner et al. does not disclose combining a single-site catalyzed ethylene homopolymer or copolymer with an incompatible polymer selected from the claimed Markush Group. The additional polymers that Haffner et al. combined with a single-site catalyzed ethylene polymer in the intermediate layer are generally compatible, so as to facilitate bonding of that layer to the spunbond web (p. 13, line 31 – p. 14, line 22). For instance, propylene-ethylene copolymers having higher amounts of ethylene than claimed by Applicants are more flexible, softer, more adhesive and more compatible with predominantly ethylene-containing polymers.

Morman et al. is cited as disclosing the use of single-site catalyzed ethylene polymers in the core layer of a multilayer film. However, this disclosure does not motivate persons skilled in the art to combine a single-site catalyzed ethylene polymer with an incompatible polymer as recited in Applicants' claims. Neither Morman et al. nor Haffner et al. contains such a suggestion.

Claims 2, 4-6, 32, 35-37, 41-43 and 45 depend from Claim 1 or 32, and are patentable for at least the same reasons. Claim 47 depends from Claim 12, and was

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improperly rejected because Claim 12 was not rejected over this art. The rejections based on Haffner et al. in view of Morman et al. should be withdrawn.

c) Claim Rejections Based On Lee et al. In View Of Stopper et al. and Morman et al.

The rejection of Claims 1-2, 4-13, 16-21, 23-25, 27-33, 35-45 and 47 under 35 U.S.C. §103(a) as obvious over EP 1,070,736 (Lee et al.) in view of WO 98/44025 (Stopper et al.) and Morman et al. is respectfully traversed.

As to independent Claim 1, Lee et al. does not disclose a core layer of a breathable multilayer film which comprises a matrix polymer including about 50-85% by weight of a Ziegler-Natta catalyzed ethylene homopolymer or copolymer and about 15-50% by weight of a single-site catalyzed ethylene homopolymer or copolymer. Lee et al. discloses a single-layer film that is devoid of a single-site catalyzed ethylene polymer. Also, as previously explained, a primary objective of Lee et al. is to compatibilize linear low density and polyethylene and polypropylene by adding a compatibilizer, namely an ethylene-propylene copolymer containing 60-80% by weight ethylene (p. 3, lines 30-36). Once two polymers have been compatibilized, they are no longer incompatible. Lee et al. provides no motivation to combine the claimed matrix polymer (including a single-site catalyzed ethylene polymer) with an incompatible polymer selected from the claimed Markush Group.

Stopper et al. also discloses a single-layer film, and does not disclose a single-site catalyzed ethylene polymer. Furthermore, Stopper et al. does not disclose formation of an incompatible polymer mixture in a breathable, stretch-thinned film, and provides no motivation to do so. On pages 7 and 8, Stopper et al. discloses a wide variety of polymers that can be used to form films. While some of the polymers may be incompatible if combined together, Stopper et al. provides no motivation to select particular combinations which result in incompatibility. Merely because alternative polymers are disclosed, some of which are inherently incompatible, does not provide motivation to combine them with each other, or with polymers (e.g., a single-site catalyzed ethylene polymer) that are not disclosed.

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Morman et al. is cited as disclosing single-site catalyzed polymers in a core layer of a multilayer film. Morman et al. does not disclose the matrix polymer composition recited in Claim 1. Furthermore, there is no suggestion to include a polymer which is incompatible with the matrix polymer, to increase the breathability of the film.

Accordingly, the combined references do not disclose the limitations of amended Claim 1. Claims 2 and 4-6 depend from Claim 1, and are patentable for at least the same reasons.

As to independent Claims 12 and 32, Lee et al. does not disclose a laminate of a film and a nonwoven web, wherein the film includes a polymer incompatible with the matrix polymer, and the nonwoven web is formed using the incompatible polymer. One feature of the invention is to place laminate waste material such as "edge trim" into the core layer of the film, thereby simultaneously a) protecting the environment by recycling the edge trim instead of discarding it, and b) increasing the water vapor transmission rate of the breathable film.

The nonwoven web component of the recycle material may contribute the polymer that is incorporated into the core layer. Accordingly, Claim 12 requires that the fibrous nonwoven web and the polymer incompatible with the matrix polymer each include the same polymer selected from a polypropylene homopolymer, a polypropylene copolymer containing up to about 10% by weight ethylene or a C₄-C₂₀ alpha-olefin comonomer, and combinations thereof. Claim 32 requires that the nonwoven web includes the polymer incompatible with the matrix polymer.

Stopper et al. and Morman et al. also do not disclose a film/nonwoven laminate in which a core layer of a film includes a matrix polymer and an incompatible polymer, and the nonwoven web includes the polymer incompatible with the matrix polymer. Accordingly, the combined references do not disclose the claimed structure. Furthermore, none of the references suggests the concept of recycling a laminate waste material into the core layer of a multilayer film, in a film/nonwoven laminate, such that the nonwoven layer contributes a polymer which is incompatible with a matrix polymer in the core layer.

Accordingly, the combined references do not disclose the limitations of amended Claims 12 and 32. Claims 35-37, 41-43 and 45 depend from Claim 12 or 32,

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and are patentable for at least the same reasons. The claim rejections based on Lee et al. in view of Stopper et al. and Morman et al. should be withdrawn.

**d) Claim Rejections Based On Lee et al. In View Of
Stopper et al., Morman et al., and Burns, Jr., et al.**

The rejection of Claims 3 and 14-15 under 35 U.S.C. §103(a) as obvious over Lee et al. in view of Stopper et al., Morman et al., and U.S. Patent 6,328,723 (Burns, Jr., et al.) is respectfully traversed.

Claims 3 and 14-15 depend from Claim 1 and are patentable for at least the same reasons. Burns, Jr., et al. does not disclose the core layer polymer composition required by Claim 1.

Applicants note that Claim 1 was rejected over Lee et al. in view of Stopper et al. and Haffner et al. in the previous Office Action. However, that rejection was not maintained in the current Office Action.

e) Conclusion

Applicants believe that the claims, as now presented, are in condition for allowance. Withdrawal of the claim rejections and passing of the case to allowance are respectfully requested.

Respectfully submitted,



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